WHAT IS CLAIMED IS:

1. A method of identifying a nucleic acid molecule or polypeptide associated with a metabolic disorder comprising:

a) contacting a sample with a compound which binds to any one of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5; SEQ ID NO:7 SEQ ID NO:17, SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6; SEQ ID NO:8 or SEQ ID NO:18; and

b) detecting the presence of a nucleic acid molecule or protein in the sample that binds to the compound, thereby identifying a nucleic acid molecule or protein associated with a metabolic disorder.

2. The method of claim 1, wherein the detection of nucleic acid is a method selected from:

a) contacting a sample comprising nucleic acid molecules with a hybridization probe comprising at least 25 contiguous nucleotides of any one of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5; SEQ ID NO:7 or SEQ ID NO:17; and

b) detecting the presence of a nucleic acid molecule in the sample that hybridizes to the probe, thereby identifying a nucleic acid molecule associated with a metabolic disorder; or

a) contacting a sample comprising nucleic acid molecules with a first and a second amplification primer, the first primer comprising at least 25 contiguous nucleotides of any one of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5; SEQ ID NO:7 or SEQ ID NO:17 and the second primer comprising at least 25 contiguous nucleotides from the complement of any one of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5; SEQ ID NO:7 or SEQ ID NO:17;

b) incubating the sample under conditions that allow nucleic acid amplification; and

c) detecting the presence of a nucleic acid molecule in the sample that is amplified, thereby identifying a nucleic acid molecule associated with a metabolic disorder.

3. The method of claim 1 wherein detection of a polypeptide comprises:

a) contacting a sample comprising polypeptides with any one of a C3aR, C5aR, HAP, OPN or MCP-1 binding substance; and

b) detecting the presence of a polypeptide in the sample that binds to the C3aR, C5aR, HAP, OPN or MCP-1 binding substance, thereby identifying a polypeptide associated with a metabolic disorder.

4. The method of claim 3, wherein the binding substance is an antibody.

5. The method of claim 3, wherein the binding substance is a polypeptide.

6. The method of claim 3, wherein the binding substance is detectably labeled.

7. A method of identifying a subject having a metabolic disorder, or at risk for developing a metabolic disorder comprising:

a) contacting a sample obtained from the subject comprising nucleic acid molecules or polypeptides with at least one compound which binds to any one of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5; SEQ ID NO:7 SEQ ID NO:17; SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6; SEQ ID NO:8 or SEQ ID NO:18; and

b) detecting the presence of a nucleic acid molecule or polypeptide in the sample that binds to the compound;

wherein detection of a nucleic acid molecule or polypeptide selected from the group consisting of C3aR, C5aR, HAP, MCP-1 and OPN thereby identifies a subject having a metabolic disorder, or at risk for developing a metabolic disorder.

8. The method of claim 7, wherein detecting the presence of nucleic acid is carried out by a method selected from:

a) contacting a sample obtained from the subject comprising nucleic acid molecules with a hybridization probe comprising at least 25 contiguous nucleotides; and

b) detecting the presence of a nucleic acid molecule in the sample that hybridizes to the probe; or

a) contacting a sample obtained from the subject comprising nucleic acid molecules with a first and a second amplification primer, the first primer comprising at least 25 contiguous nucleotides and the second primer comprising at least 25 contiguous nucleotides;

b) incubating the sample under conditions that allow nucleic acid amplification; and

c) detecting the presence of a nucleic acid molecule in the sample that is amplified.

9. The method of claim 7, wherein the method is used to detect mRNA in the sample.

10. The method of claim 7, wherein the method is used to detect genomic DNA in the sample.

11. The method of claim 7, wherein detection of a polypeptide comprises

a) contacting a sample obtained from the subject comprising polypeptides with an inflammatory molecule binding substance; and

b) detecting the presence of a polypeptide in the sample that binds to the inflammatory mediator binding substance, thereby identifying a subject having a metabolic disorder, or at risk for developing a metabolic disorder;

where in the inflammatory mediator is selected from the group consisting of C3aR, C5aR, HAP, MCP-1 and OPN.

12. The method of claim 11, wherein the binding substance is an antibody.

13. The method of claim 11, wherein the binding substance is detectably labeled.

14. A method for identifying a compound capable of treating a metabolic disorder comprising assaying the ability of a compound to modulate anaphylatoxin receptor C3aR or C5aR nucleic acid expression or anaphylatoxin receptor C3aR or C5aR polypeptide activity, and identifying a compound capable of modulating anaphylatoxin receptor C3aR or C5aR nucleic acid expression or anaphylatoxin receptor C3aR or C5aR polypeptide activity, thereby identifying a compound capable of treating a metabolic disorder.

15. The method of claim 14, wherein the metabolic disorder is obesity, diabetes, or insulin resistance.

16. The method of claim 14, wherein the ability of the compound to modulate the activity of the anaphylatoxin receptor C3aR or C5aR polypeptide is determined by detecting the induction of an intracellular second messenger.

17. A method for identifying a compound capable of modulating an anaphylatoxin receptor mediated metabolic activity, comprising:

(a) contacting a composition comprising anaphylatoxin receptor with a test compound; and

(b) assaying the ability of the test compound to modulate the expression of a anaphylatoxin receptor nucleic acid or the activity of a anaphylatoxin receptor polypeptide, thereby identifying a compound capable of modulating a anaphylatoxin receptor mediated metabolic activity;

wherein the anaphylatoxin receptor comprises C3aR or C5aR.

18. The method of claim 17, wherein the method comprises:

(a) contacting a composition comprising a polypeptide comprising the amino acid sequence of SEQ ID NO:2 or 5 with a test compound; and

(b) assaying the ability of the test compound to modulate the activity of the polypeptide, thereby identifying a compound capable of modulating a anaphylatoxin receptor mediated metabolic activity.

19. A method for modulating a anaphylatoxin receptor mediated metabolic activity comprising contacting a cell or a tissue expressing the anaphylatoxin receptor with a anaphylatoxin receptor modulator, thereby modulating the anaphylatoxin receptor mediated metabolic activity, wherein the analphylatoxin receptor is C3aR or C5aR.

20. The method of claim 19, wherein the compound or modulator is selected from the group consisting of a small molecule anaphylatoxin receptor antagonist, a small molecule anaphylatoxin receptor inverse agonist, an anti-anaphylatoxin receptor antibody, an antisense anaphylatoxin receptor molecule, and a anaphylatoxin receptor ribozyme.

21. The method of claim 19, wherein the anaphylatoxin receptor mediated metabolic activity comprises an activity selected from the group consisting of:

(1) the ability to interact with a non-anaphylatoxin receptor molecule;
(2) the ability to activate an anaphylatoxin receptor-dependent signal transduction pathway;
(3) the ability to modulate C3a or C5a gene expression or protein activity;
(4) the ability to modulate insulin signaling
(5) the ability to modulate glucose metabolism; and
(6) the ability to modulate insulin metabolism.

22. The method of claim 14, wherein the ability of the compound to modulate an anaphylatoxin receptor nucleic acid expression or anaphylatoxin receptor polypeptide activity is determined by detecting activity selected from the group consisting of:
(1) interaction with a non-anaphylatoxin receptor molecule;
(2) activation of an anaphylatoxin receptor-dependent signal transduction pathway;
(3) C3a or C5a gene expression or protein activity;
(4) an insulin signaling response;
(5) glucose metabolism; and
(6) insulin metabolism.

23. The method of claim 17, wherein the ability of the compound to modulate an anaphylatoxin receptor nucleic acid expression or anaphylatoxin receptor polypeptide activity is determined by detecting activity selected from the group consisting of:
(1) interaction with a non-anaphylatoxin receptor molecule;
(2) activation of an anaphylatoxin receptor-dependent signal transduction pathway;
(3) C3a or C5a gene expression or protein activity;
(4) an insulin signaling response;
(5) glucose metabolism; and
(6) insulin metabolism.